

II. Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Currently Amended) A large capacity dispensing device according to ~~claim 4~~ claim 21, comprising a gap elimination mechanism which eliminates a gap between said connection section of said dispensing cylinder, and a connection target section provided on said suction and discharge mechanism which connects to said connection section.
6. (Currently Amended) A large capacity dispensing device according to ~~either one of claim 4 and claim 5~~ claim 21, wherein said small diameter section of said dispensing cylinder comprises an engagement section formed so as to protrude outward from said small diameter section, and said container placement area contains in addition to a plurality of containers, one or more sheaths which can be fitted by engaging an opening thereof with said engagement section so that the sheath covers said small diameter section of said dispensing cylinder, arranged in a manner that enables fitting to said small diameter section.
7. (Currently Amended) A large capacity dispensing device according to ~~either one of claim 4 and claim 5~~ claim 21, wherein a magnetic section capable of exerting and removing a magnetic field into the small diameter section of said dispensing cylinder, is provided at a predetermined position in the vicinity of a path of vertical movement of said small diameter section.

8. (Currently Amended) A large capacity dispensing device according to ~~either one of claim 4 and claim 5~~ claim 21, comprising an optical measuring section capable of optically measuring a fluid level in said dispensing cylinder.
9. (Canceled)
10. (Canceled)
11. (Currently Amended) A large capacity dispensing device according to ~~claim 4~~ claim 21, wherein an identifier is affixed to a container placed in said container placement area which identifies said container, and which comprises a readout section which reads the identifier affixed to said container.
12. (Canceled)
13. (Currently Amended) A large capacity dispensing device according to ~~any one of claim 4, claim 11, and claim 12~~ claim 21, wherein said container placement area comprises a temperature adjustment section which adjusts the temperature of containers placed in the area.
14. (Canceled)
15. (Currently Amended) A method of using a large capacity dispensing device according to ~~claim 14~~ claim 23, comprising a sheath fitting step for moving said dispensing cylinder to a position in said container placement area where said sheath is placed, and fitting said sheath by lowering said dispensing cylinder so that said sheath covers said small diameter section of said dispensing cylinder.
16. (Currently Amended) A method of using a large capacity dispensing device according to ~~claim 14~~ claim 23, comprising an operation checking step for, during said suction and discharge

step, checking the result of suction or discharge, by optically measuring a fluid volume within said dispensing cylinder.

17. (Currently Amended) A method of using a large capacity dispensing device according to ~~any one of claim 14 through claim 16~~ claim 23, comprising a container placement checking step for checking the placement of a container in said container placement area, by reading an identifier of a container placed in the area.

18. (Currently Amended) A method of using a large capacity dispensing device according to ~~any one of claim 14 through claim 16~~ claim 23, comprising a step for adjusting the temperature of a fluid by using said dispensing cylinder to transfer a fluid to a container where a temperature adjustment section which adjusts the temperature of said container is provided.

19. (Currently Amended) A method of using a large capacity dispensing device according to ~~any one of claim 14 through claim 16~~ claim 23, comprising a gap removal step for eliminating a gap between a connection section of said dispensing cylinder and a connection target section provided on said suction and discharge mechanism which connects to said connection section.

20. (Currently Amended) A method of using a large capacity dispensing device according to ~~any one of claim 14 through claim 16~~ claim 23 comprising; a step for moving a small diameter section of a dispensing cylinder vertically to a magnetic activity region provided in a path of vertical movement of said small diameter section, and a step for exerting a magnetic field into or removing a magnetic field from said small diameter section in said magnetic activity region when a solution in which magnetic particles are suspended is sucked or discharged using a dispensing cylinder.

21. (Currently Amended) A large capacity dispensing device ~~according to claim 4,~~
comprising:

one or more dispensing cylinders, each of the dispensing cylinders comprising:
a small diameter section,

a large diameter section which communicates with said small diameter section and is capable of holding fluids,

a sliding section provided in a slidable manner within said large diameter section which enables fluid to be sucked and discharged to and from said large diameter section through said small diameter section, and

a connection section connected to the sliding section so that the sliding section is axially positioned between the connection section and the small diameter section;

a suction and discharge mechanism, the suction and discharge mechanism comprising:

an actuating part which connects to each of said connection sections in a detachable manner and drives said sliding sections, and

a non-actuating part comprising one or more fitting sections, each of which fits a respective one of said large diameter sections in a detachable manner to said suction and discharge mechanism to secure said respective large diameter section to said suction and discharge mechanism;

a container placement area in which a plurality of containers can be placed; and

a movement section which enables said one or more dispensing cylinders to move relative to said container placement area;

wherein the sliding section comprises:

a disk-shaped piston which slides inside the large diameter section;

a rod, one end of which is secured to the piston, wherein the connection section is provided at the other end of the rod; and

a tube supported by an end of the large diameter section that axially opposes the small diameter section, the tube having a diameter and being positioned, relative to the rod, such that:

the rod passes through the inside of the tube,

relative axial movement between the rod and the tube is permitted,

the rod is substantially axially aligned with the large diameter section at the end of the large diameter section that axially opposes the small diameter section, and

the tube is axially positioned between the piston and the connection section and thereby prevents the piston from exiting the large diameter section through the end of the large diameter section that axially opposes the small diameter section.

22. (Currently Amended) A large capacity dispensing device ~~according to claim 4,~~
comprising:

one or more dispensing cylinders, each of the dispensing cylinders comprising:

a small diameter section,

a large diameter section which communicates with said small diameter section
and is capable of holding fluids,

a sliding section provided in a slidable manner within said large diameter section
which enables fluid to be sucked and discharged to and from said large diameter section
through said small diameter section, and

a connection section connected to the sliding section so that the sliding section is
axially positioned between the connection section and the small diameter section;

a suction and discharge mechanism, the suction and discharge mechanism comprising:

an actuating part which connects to each of said connection sections in a
detachable manner and drives said sliding sections, and

a non-actuating part comprising one or more fitting sections, each of which fits a
respective one of said large diameter sections in a detachable manner to said suction and
discharge mechanism to secure said respective large diameter section to said suction and
discharge mechanism;

a container placement area in which a plurality of containers can be placed; and

a movement section which enables said one or more dispensing cylinders to move
relative to said container placement area;

wherein the sliding section comprises a tube supported by an end of the large diameter
section that axially opposes the small diameter section, the tube comprising a flange; and

wherein the fitting section comprises a cylindrical sandwiching member that is axially
positioned between the flange of the tube and the end of the large diameter section that axially
opposes the small diameter section, the cylindrical sandwiching member clamping the tube in an
elastically energized state.

23. (Currently Amended) A method of using a large capacity dispensing device according to claim 14, comprising:

a suction and discharge step for sucking or discharging a predetermined fluid to or from a container by using:

the container placed in a container placement area;

one or more dispensing cylinders, each of the dispensing cylinders comprising: a small diameter section, a large diameter section which communicates with said small diameter section and is capable of holding fluid, a sliding section provided in a slidable manner within said large diameter section which enables fluid to be sucked and discharged to and from said large diameter section through said small diameter section, and a connection section connected to the sliding section so that the sliding section is axially positioned between the connection section and the small diameter section; and

a suction and discharge mechanism, the suction and discharge mechanism comprising: an actuating part which connects to each of said connection sections in a detachable manner and drives said sliding sections, and a non-actuating part comprising one or more fitting sections, each of which fits a respective one of said large diameter sections in a detachable manner to said suction and discharge mechanism to secure said respective large diameter section to said suction and discharge mechanism;

and

a movement step for moving said one or more dispensing cylinders relative to said container placement area;

wherein the sliding section comprises:

a disk-shaped piston which slides inside the large diameter section;

a rod, one end of which is secured to the piston, wherein the connection section is provided at the other end of the rod; and

a tube supported by an end of the large diameter section that axially opposes the small diameter section, the tube having a diameter and being positioned, relative to the rod, such that:

the rod passes through the inside of the tube,

relative axial movement between the rod and the tube is permitted,

the rod is substantially axially aligned with the large diameter section at the end of the large diameter section that axially opposes the small diameter section, and

the tube is axially positioned between the piston and the connection section and thereby prevents the piston from exiting the large diameter section through the end of the large diameter section that axially opposes the small diameter section.

24. (Currently Amended) A method of using a large capacity dispensing device according to claim 14, comprising:

a suction and discharge step for sucking or discharging a predetermined fluid to or from a container by using:

the container placed in a container placement area;

one or more dispensing cylinders, each of the dispensing cylinders comprising: a small diameter section, a large diameter section which communicates with said small diameter section and is capable of holding fluid, a sliding section provided in a slidable manner within said large diameter section which enables fluid to be sucked and discharged to and from said large diameter section through said small diameter section, and a connection section connected to the sliding section so that the sliding section is axially positioned between the connection section and the small diameter section; and

a suction and discharge mechanism, the suction and discharge mechanism comprising: an actuating part which connects to each of said connection sections in a detachable manner and drives said sliding sections, and a non-actuating part comprising one or more fitting sections, each of which fits a respective one of said large diameter sections in a detachable manner to said suction and discharge mechanism to secure said respective large diameter section to said suction and discharge mechanism;

and

a movement step for moving said one or more dispensing cylinders relative to said container placement area;

wherein the sliding section comprises a tube supported by an end of the large diameter section that axially opposes the small diameter section, the tube comprising a flange; and

wherein the fitting section comprises a cylindrical sandwiching member that is axially positioned between the flange of the tube and the end of the large diameter section that axially opposes the small diameter section, the cylindrical sandwiching member clamping the tube in an elastically energized state.

25. (New) A large capacity dispensing device according to claim 22, comprising a gap elimination mechanism which eliminates a gap between said connection section of said dispensing cylinder, and a connection target section provided on said suction and discharge mechanism which connects to said connection section.

26. (New) A large capacity dispensing device according to claim 22, wherein said small diameter section of said dispensing cylinder comprises an engagement section formed so as to protrude outward from said small diameter section, and said container placement area contains in addition to a plurality of containers, one or more sheaths which can be fitted by engaging an opening thereof with said engagement section so that the sheath covers said small diameter section of said dispensing cylinder, arranged in a manner that enables fitting to said small diameter section.

27. (New) A large capacity dispensing device according to claim 22, wherein a magnetic section capable of exerting and removing a magnetic field into the small diameter section of said dispensing cylinder, is provided at a predetermined position in the vicinity of a path of vertical movement of said small diameter section.

28. (New) A large capacity dispensing device according to claim 22, comprising an optical measuring section capable of optically measuring a fluid level in said dispensing cylinder.

29. (New) A large capacity dispensing device according to claim 22, wherein an identifier is affixed to a container placed in said container placement area which identifies said container, and which comprises a readout section which reads the identifier affixed to said container.

30. (New) A large capacity dispensing device according to claim 22, wherein said container placement area comprises a temperature adjustment section which adjusts the temperature of containers placed in the area.

31. (New) A method of using a large capacity dispensing device according to claim 24, comprising a sheath fitting step for moving said dispensing cylinder to a position in said container placement area where said sheath is placed, and fitting said sheath by lowering said dispensing cylinder so that said sheath covers said small diameter section of said dispensing cylinder.

32. (New) A method of using a large capacity dispensing device according to claim 24, comprising an operation checking step for, during said suction and discharge step, checking the result of suction or discharge, by optically measuring a fluid volume within said dispensing cylinder.

33. (New) A method of using a large capacity dispensing device according to claim 24, comprising a container placement checking step for checking the placement of a container in said container placement area, by reading an identifier of a container placed in the area.

34. (New) A method of using a large capacity dispensing device according to claim 24, comprising a step for adjusting the temperature of a fluid by using said dispensing cylinder to transfer a fluid to a container where a temperature adjustment section which adjusts the temperature of said container is provided.

35. (New) A method of using a large capacity dispensing device according to claim 24, comprising a gap removal step for eliminating a gap between a connection section of said dispensing cylinder and a connection target section provided on said suction and discharge mechanism which connects to said connection section.

36. (New) A method of using a large capacity dispensing device according to claim 24 comprising; a step for moving a small diameter section of a dispensing cylinder vertically to a magnetic activity region provided in a path of vertical movement of said small diameter section, and a step for exerting a magnetic field into or removing a magnetic field from said small diameter section in said magnetic activity region when a solution in which magnetic particles are suspended is sucked or discharged using a dispensing cylinder.